

Claims

1. Axial-piston machine including at least one swash plate (12, 14) on which a cylinder drum (18, 20) is supported, wherein pistons (24, 26) are guided that are in operative connection with a shaft (4), wherein the axis of rotation of the cylinder drum (18, 20) is inclined relative to the axis of rotation of the pistons (24, 26), and wherein the cylinder drum (18, 20) has a multiplicity of cylinder sleeves (22, 23) indirectly or directly supported on the swash plate (12, 14),
characterized in that each cylinder sleeve (22, 23) is pivotally mounted through the intermediary of a joint (58, 54; 58, 82).
2. Axial-piston machine in accordance with claim 1, wherein the joint (58, 54; 58, 82) is a ball joint.
3. Axial-piston machine in accordance with claim 1 or 2, wherein a joint pin (56) extends through a bottom of the cylinder sleeve (22, 23) and forms the joint jointly with an inner peripheral range (54) of the cylinder sleeve (22, 23).
4. Axial-piston machine in accordance with claim 3, wherein the joint pin is a spherical shell (56), on the spherical head (58) of which a seal (60) contacting the inner peripheral wall (54) of the cylinder sleeve (22, 23) is formed.
5. Axial-piston machine in accordance with claim 1 or 2, wherein a joint pin of the joint is formed by a pin (80) which axially projects from the bottom of the cylinder sleeves (22, 23) and carries a seal (60).

6. Axial-piston machine in accordance with any one of the preceding claims, wherein the cylinder sleeves (22, 24) are biased into a position of contact.
7. Axial-piston machine in accordance with claim 6, wherein the cylinder sleeves (22, 23) have on the foot side a radially projecting support rim (44) on which a tensioning spring (48) attacks.
8. Axial-piston machine in accordance with claim 3 or 4, wherein each cylinder sleeve (22, 24) has a spherical bottom surface (46).
9. Axial-piston machine in accordance with any one of the preceding claims, wherein the cylinder sleeves (22, 23) are guided in a drive member (36) of the cylinder drums (18, 20), which drive member is supported through one end face on the swash plate (12, 14) and is connected in rotation with the shaft (4) so as to admit a tumbling motion.
10. Axial-piston machine in accordance with claim 8, wherein the drive member (36) has a drive member disc with a flange part (40), at the annular end face (42) of which the cylinder sleeves (22, 23) are supported.
11. Axial-piston machine in accordance with claim 10 and 3 or 4, wherein through openings (66, 68) are arranged in the flange parts (40), approximately in axial alignment with the cylinder sleeve (22, 23), in each of which one joint pin (56) is immobilized.
12. Axial-piston machine in accordance with claim 11, wherein the through opening (68) is formed in a kidney shape in portions thereof, and the joint pin

(56) is positively immobilized by beading the ranges adjacent these kidney-shaped portions (68).

13. Axial-piston machine in accordance with claim 3 or 5, wherein a bore (64) extends through the joint pin (56) or the pin (80).
14. Axial-piston machine in accordance with claim 5 or a claim appended thereto, wherein a spherical head (58) of the pin (80) is mounted in a bearing reception (82) of the flange part (40).
15. Axial-piston machine in accordance with any one of the preceding claims mit two rows of oppositely oriented pistons (24, 26), to each of which a cylinder drum (18, 20) and a swash plate (12, 14) are associated.
16. Axial-piston machine in accordance with any one of the preceding claims, wherein the piston has the form of a double piston with two oppositely oriented pistons (24, 26) that are connected in rotation with the shaft (4), and the portions of which plunging into the cylinder sleeves (22, 23) conically expand from a constriction (72) towards the piston rings (74).
17. Axial-piston machine in accordance with any one of the preceding claims, wherein it is realized as an axial piston pump.